CANCER INHIBITORS ISOLATED FROM AN AFRICAN PLANT

SUMMARY

The National Cancer Institute's Molecular Targets Development Program is seeking parties interested in collaborative research to further develop, evaluate, or commercialize cancer inhibitors isolated from the African plant Phyllanthus englerii. The technology is also available for exclusive or non-exclusive licensing.

REFERENCE NUMBER

E-064-2008

PRODUCT TYPE

- Therapeutics

KEYWORDS

- Englerin A.

COLLABORATION OPPORTUNITY

This invention is available for licensing.

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DESCRIPTION OF TECHNOLOGY

The National Cancer Institute's Molecular Targets Development Program is seeking parties interested in collaborative research to further develop, evaluate, or commercialize cancer inhibitors isolated from the African plant Phyllanthus englerii. The technology is also available for exclusive or non-exclusive licensing.

This invention involves compounds extracted from the African plant Phyllanthus englerii that have potential cancer-inhibiting activity. Bioassay-guided fractionation of the purified extracts revealed a series of novel chemical entities which are named Englerin A-F. The englerins and their derivatives are useful in the treatment of a number of cancers, particularly renal cancer. The englerins exhibit selective and potent renal cell inhibitory activity in vitro.

These compounds can be recovered in reasonable yield from natural product extracts and are well suited for synthetic chemistry derivativization. A sufficient supply of several analogs was extracted for

identification and initial biological characterization. A National Cancer Institute NCI60 anti-cancer screening program confirmed renal-selective activity.

Further R&D Needed:

- Assess toxicity of the compounds in mice and other experimental animals
- Studies to determine if therapeutic blood levels of the compound can be obtained.
- Conduct animal studies to establish efficacy against tumors.

COMPETITIVE ADVANTAGES

- Ability to develop therapeutics for renal and other types of cancer
- Reasonable yield and recovery of the compounds from the natural product extracts
- Tractable synthetic chemistry schemes for synthesis of these compounds

INVENTOR(S)

- John A Beutler (NCI)

DEVELOPMENT STAGE

- Pre-clinical (in vivo)

PATENT STATUS

- **U.S. Filed:** U.S. Provisional Application No. 61/018,938 filed 04 Jan 2008

THERAPEUTIC AREA

- Cancer/Neoplasm